



Santé
Canada

Health
Canada

*Votre santé et votre
sécurité... notre priorité.*

*Your health and
safety... our priority.*

RVD2008-04

Décision de réévaluation

Triallate

(also available in English)

Le 4 février 2008

Ce document est publié par l'Agence de réglementation de la lutte antiparasitaire de Santé Canada. Pour de plus amples renseignements, veuillez communiquer avec :

Publications
Agence de réglementation de
la lutte antiparasitaire
Santé Canada
2720, promenade Riverside
I.A. 6605C
Ottawa (Ontario) K1A 0K9

Internet : pmra_publications@hc-sc.gc.ca
www.pmra-arla.gc.ca
Télécopieur : 613-736-3758
Service de renseignements :
1-800-267-6315 ou 613-736-3799
pmra_info@hc-sc.gc.ca

Canada 

ISBN : 978-0-662-08059-6 (978-0-662-08060-2)

Numéro de catalogue : H113-28/2008-4F (H113-28/2008-4F-PDF)

© Sa Majesté la Reine du chef du Canada, représentée par le ministre de Santé Canada, 2008

Tous droits réservés. Il est interdit de reproduire ou de transmettre l'information (ou le contenu de la publication ou du produit), sous quelque forme ou par quelque moyen que ce soit, reproduction électronique ou mécanique, photocopie, enregistrement sur support magnétique ou autre, ou de la verser dans un système de recherche documentaire, sans l'autorisation écrite préalable du ministre de Travaux publics et Services gouvernementaux Canada, Ottawa (Ontario) K1A 0S5.

Table des matières

Décision de réévaluation	1
Autres renseignements	2
Annexe I Liste de références	3

Décision de réévaluation

Après avoir réévalué l'herbicide triallate, l'Agence de réglementation de la lutte antiparasitaire (ARLA) de Santé Canada, en vertu de la Loi sur les produits antiparasitaires (LPA) et de ses règlements, accepte de maintenir l'homologation de certains produits contenant du triallate à des fins de vente et d'utilisation au Canada.

Une évaluation des renseignements scientifiques disponibles a révélé que, sous les conditions d'utilisation proposées, les produits à base de triallate ne présentent pas de risque inacceptable pour la santé humaine ni pour l'environnement s'ils sont utilisés conformément au mode d'emploi de l'étiquette. Afin de maintenir l'homologation des utilisations de triallate, il faut ajouter de nouvelles mesures de réduction des risques sur l'étiquette des produits contenant du triallate. L'ARLA exige d'autres données pour le maintien d'utilisations précises.

Les principales mesures d'atténuation proposées sont les suivantes :

- Pour ce qui est des formulations en concentré émulsifiable, il faut ajouter des énoncés sur l'étiquette pour limiter la quantité manipulée quotidiennement à 189 kg de matière active et exiger le recours à des systèmes fermés de mélange et de chargement ainsi que l'application en cabine fermée.
- Les formulations en granulés requièrent un équipement de protection individuelle additionnel.
- Il faut observer un délai de sécurité de 12 heures avant d'entrer ou de permettre aux travailleurs d'entrer dans les zones traitées.
- Des mesures de précaution additionnelles sont requises pour empêcher le ruissellement, le lessivage et la volatilisation.
- L'imposition de zones tampons est nécessaire pour protéger les habitats terrestres et aquatiques lors de l'utilisation de formulations en concentré émulsifiable.

La démarche réglementaire adoptée pour procéder à la réévaluation du triallate a d'abord été proposée dans le document de consultation¹ intitulé *Réévaluation du triallate* (Projet de décision de réévaluation PRVD2007-08). Ce document portant sur la décision de réévaluation² décrit l'étape du processus de réglementation de l'ARLA qui concerne la réévaluation du triallate, résume la décision de l'ARLA ainsi que les motifs qui la justifient. L'ARLA n'a reçu aucun commentaire pendant la période de consultation. Par conséquent, cette décision est identique à celle proposée dans le PRVD2007-08. Afin de se conformer à cette décision, les titulaires des

¹ « Énoncé de consultation » tel que requis au paragraphe 28(2) de la LPA.

² « Énoncé de décision » tel que requis au paragraphe 28(5) de la LPA.

produits contenant du triallate seront informés des exigences précises touchant l'homologation de leurs produits et des options réglementaires qui s'offrent à eux.

Pour obtenir des précisions sur les renseignements relatifs à la présente décision de réévaluation, veuillez consulter le projet de décision de réévaluation correspondant, intitulé *Réévaluation du triallate* (PRVD2007-08).

Autres renseignements

En ce qui concerne le triallate, le résumé des évaluations présentées dans le PRVD2007-08 tient lieu de rapport d'évaluation. Une liste des références examinées par l'ARLA en appui à la décision d'homologation se trouve à l'annexe I du présent document. Les données d'essai pertinentes ayant servies à prendre la décision peuvent être consultées sur demande, dans la salle de lecture de l'ARLA située à Ottawa. Pour plus d'information, veuillez joindre le Service de renseignements sur la lutte antiparasitaire en composant le 1-800-267-6315 ou en envoyant un courriel à pmra_infoserv@hc-sc.gc.ca.

Toute personne peut déposer un avis d'opposition³ à l'égard de la décision de réévaluation sur le triallate dans les 60 jours à partir de la date de publication du présent document. Pour obtenir davantage de renseignements sur les raisons justifiant un tel avis (raisons qui doivent reposer sur des fondements scientifiques), veuillez consulter le site Web de l'ARLA (Demande d'examen d'une décision, www.pmra-arla.gc.ca/francais/pubreg/reconsideration-f.html), téléphoner au Service de renseignements sur la lutte antiparasitaire de l'ARLA au 1-800-267-6315 ou envoyer un courriel à pmra_inforsevr@hc-sc.gc.ca.

³ Tel que mentionné au paragraphe 35(1) de la LPA.

Annexe I Liste de références

A. Études et renseignements présentés par le demandeur ou le titulaire (non publiés)

Effets sur la santé des humains et des animaux

N° PMRA	Référence
1171426	A dermal sensitization study in Guinea pigs: Far-Go E.C. Biodynamics, Inc. Project No. BD-83-214. Study No. 4543-83. January 17, 1984.
1171428	Acute oral toxicity of Avadex BW EC herbicide to rats. Monsanto Study No. 810173. DMEH Project No. ML-81-369. November 9, 1982.
1171428	Acute dermal toxicity of Avadex BW EC herbicide to rabbits. Monsanto Study No. 810174. DMEH Project No. ML-81-369. November 9, 1982.
1171428	Primary eye irritation of Avadex BW EC herbicide to rabbits. Monsanto Study No. 810176. DMEH Project No. ML-81-369. November 9, 1982.
1171428	Primary skin irritation of Avadex BW EC herbicide to rabbits. Monsanto Study No. 810175. DMEH Project No. ML-81-369. November 9, 1982.
1171429	Acute toxicity of triallate technical administered by inhalation to Sprague-Dawley male and female rats. Monsanto Report No. MSL-2473. Job/Project No. ML-81-318/810131. September 9, 1982.
1171430	21-day dermal toxicity study in rabbits. Test article: Avadex BW EC. International Research and Development Corp. Study No. 401-174 Monsanto Project No. IR-81-316. September 7, 1982.
1171431	Effect of a single oral dose of triallate on hens. Department of Pharmacology, Duke University Medical Center. Monsanto Report No. MSL-2176. Job/Project No. ML-81-048/EHL 810111. August 10, 1983.
1171434	Elimination of ¹⁴ C-triallate in rhesus monkeys following a single parenteral dose. University of California, San Francisco. Monsanto Study No. MA-81-348. April 1, 1983.
1171436	A dermal sensitization study in Guinea pigs. Test material: triallate. Biodynamics Project No. 4265-83. Monsanto Reference No. BD-83-020. October 7, 1983.
1171437	Seven-week toxicity study of triallate administered to male and female Sprague-Dawley rats by inhalation. Monsanto Report No. MSL-3192. Job/Project No. ML-82-214/EHL 820125. September 27, 1983.

- 1171438 Acute oral toxicity study of triallate technical administered by gavage to Sprague-Dawley rats. Monsanto Report No. MSL-2241. Job/Project No. ML-80-476/800315. May 7, 1982.
- 1171440 21-day dermal toxicity study in rabbits. Test article: technical triallate. International Research and Development Corp. Study No. 401-162. Monsanto Project No. IR-81-03. April 27, 1982.
- 1171441 Acute inhalation toxicity study of Avadex BW EC to Sprague-Dawley rats. Monsanto Report No. MSL-2176. Job/Project No. ML-81-048/EHL 810111. April 23, 1982.
- 1180860 Acute neurotoxicity study of triallate in Sprague-Dawley rats. Monsanto Study No. ML-92-065/EHL 92020 & 92021. RD 1172. July 8, 1993.
- 1180861 Subchronic neurotoxicity study of triallate in Sprague-Dawley rats. Monsanto Study No. ML-92-384/EHL 92125. RD 1199. November 17, 1993.
- 1181032 Two year study of triallate administered in feed to mice. Monsanto Report No. MSL-3196. Job/Project No. ML-80-098/EHL 800130. September 27, 1983.
- 1181033 Triallate technical. A two generation reproduction study in the rat. Monsanto Report No. MSL-3651. Job/Project No. ML-82-189/EHL 820123. July 11, 1984.
- 1181035 Rat metabolism data with triallate. Monsanto Special Report No. MSL-3286. RD. No. 516. December 22, 1983.
- 1181038 Effects of chronic oral, and dermal administration of pesticides on laying hens, including delayed neuropathy. I. Organophosphorus pesticides. College of Veterinary Medicine and Institute of Environmental Studies, University of Illinois. Report of NCRPIAP Project #145, *Risks of Neurotoxic Effects Following Dermal Exposure to Organophosphate and Carbamate Pesticides*. September, 1982.
- 1181039 A study of the metabolic fate of triallate metabolites in the rat. Monsanto Special Report No. MSL-4565. RD No. 590. March 15, 1985.
- 1204142 Mutagenicity evaluation of triallate, lot XHI-50, using *Salmonella* and *Saccharomyces* indicator organisms. BIO-77-170. Litton Bionetics, Inc. LBI Project No. 2683 Monsanto Special Report No. MSL-1231. RD No. 311. July 28, 1980.
- 1204144 Mutagenicity evaluation of CP 23426 in the mouse lymphoma assay. BIO-77-172. Litton Bionetics, Inc. LBI Project No. 2684 Monsanto Special Report No. MSL-0262. RD No. 169. August, 1977.

- 1204145 Mutagenicity evaluation of XHI 50 in the mouse lymphoma assay. BIO-77-175. Litton Bionetics, Inc. LBI Project No. 2684 Monsanto Special Report No. MSL-0262. RD No.169. August, 1977.
- 1249362 An oral acute toxicity and cholinesterase inhibition study in rats with triallate. Monsanto Special Report No. MSL-4637. RD No. 609. April 10, 1985.
- 1249364 Lifetime chronic/oncogenicity study of triallate technical administered orally to Syrian Golden hamsters. Bio-research Consultants, Inc. Contract C-253 (BR-81-245). Monsanto Special Report No. MSL-4638. RD No. 611. April 10, 1985.
- 1181039 Maibach, H.I. April 1, 1983. A) Elimination of ^{14}C - Triallate In Rhesus Monkeys Following A Single Parenteral Dose. B) Percutaneous Absorption of ^{14}C - Triallate in Fargo® EC Formulation In Rhesus Monkeys Following A Single Topical Dose. Study Completion Date March 8, 1982. University of California School of Medicine, San Francisco, California. Study Number MA-81-348. Unpublished.
- 1249375 Warren, S., Lawman, K.J. and Williams, M. (1984) Metabolism of ^{14}C -triallate and ^{14}C -2,3,3-trichloroprop-2-enesulfonic acid, sodium salt in dairy goats, Part I: Feeding trial, ABC Laboratories Report No. 30107. (part II, MSL-4412). Monsanto Report no. MSL3690.
- 1212662 Elliot R.C and Chott K.A (1985) "Metabolism of ^{14}C -Triallate and ^{14}C -2,3,3-Trichloroprop-2-ene Sulfonic Acid, Sodium Salt in Dairy Goats: Part II - Identification, characterization and quantification of metabolites in milk, tissues and excreta." Unpublished study prepared by Monsanto Agricultural Products Company. Special Report MSL-4412/MLS-4651. April 15, 1985.
- 1249363 Warren, S., Lawman, K.J. and Williams, M. (1984) Metabolism of ^{14}C -triallate and ^{14}C -2,3,3-trichloroprop-2-enesulfonic acid, sodium salt in laying hens, Part I: Feeding trial, ABC Laboratories Report No. 30108. (part II, MSL-4292), Monsanto Report no. MSL 3689.
- 1212663 Moran, S.J. (1985) "Metabolism of ^{14}C -Triallate and ^{14}C -2,3,3-Trichloroprop-2-enesulfonic acid, Sodium Salt in Laying Hens. Identification, characterization and quantification of metabolites in eggs, tissues and excreta" Unpublished study prepared by Monsanto Agricultural Products Company. Special Report MSL-4292/MSL-4636. April 10, 1985.
- 1249359 Moran S.J, Grabiak MC (1982) "The Uptake and Metabolic Fate of Triallate in Wheat Straw and Wheat Grain." Unpublished study prepared by Monsanto Agricultural Products Company. R.D. No. 589. Special Report MSL-2401. March 15, 1985.

- 1212277 Moran S.J, Grabiak MC (1985) "The Uptake and Metabolic Fate of Triallate in Wheat Straw and Wheat Grain." Unpublished study prepared by Monsanto Agricultural Products Company. Special Report MSL-2401/MSL-4564. March 15, 1985.
- 656620 Anderson, K.S. (1984) "The Uptake and Metabolic Fate of Triallate in Sunflowers, Sugar Beets and Peas." Unpublished study prepared by Monsanto. Project No. 7812. Report No. MSL-3405. March 1984.
- 656621 Howe, R.K. (1993) "Additional Data for Triallate Sugar Beet Metabolism Study." Unpublished study prepared by Monsanto. R.D. No. 1200. October 4, 1993. 35 pages.
- 656622 Horton, S.R., Klemm, G.H., Solstein, R.T. and Hackett, A.G. (1994) "The Metabolism of Triallate in Peas." Unpublished study prepared by Monsanto. R.D. No. 1281. Project No. 201200. Report No. MSL-13675. November 18, 1994. 264 pages.
- 656623 Allan, J.M. (1996) "Regulatory Enforcement Method for the Determination of Triallate and its Metabolite, the Sodium Salt of 2,3,3-Trichloroprop-2-ene Sulfonic Acid in Crops." Unpublished study prepared by Monsanto. Project No. 012000. Report No. MSL-14690. October 1996. 161 pages.
- 656626 Davis, K. (1997) "Validation of the Regulatory Enforcement Method for the Determination of Triallate and its Metabolite, the Sodium Salt of 2,3,3-Trichloroprop-2-ene Sulfonic Acid in Crops Using Processed Sugar Beet Pulp, Wheat Straw, Peas and Pea Forage." Unpublished study prepared by Monsanto. Validation conducted by ABC Laboratories. Project No. 012000. Report No. MSL-14875. April 28, 1997. 92 pages.
- 656623 Allan, J.M. (1996) "Stability of residues of Triallate and the Sodium Salt of 2,3,3-Trichloroprop-2-ene Sulfonic Acid in Crop samples during frozen storage." Unpublished study prepared by Monsanto. Report No. MSL-8823. September 1989. 173 pages.
- 1212282 Allan, J.M. and Nord P.J (1987) "Determination of Triallate and its major metabolite in barley grain, forage and straw" Unpublished study prepared by Monsanto. Report No. MSL-6040. January 1987. 93 pages.
- 1212280 Allan, J.M. and Nord P.J (1987) "Determination of Triallate and its major metabolite in raw agricultural commodities of peas" Unpublished study prepared by Monsanto. Report No. MSL-6042. January 1987. 129 pages.
- 1236816 Allan, J.M.(1989) "Determination of Triallate and its major metabolite in wheat grain mill fractions" Unpublished study prepared by Monsanto. Report No. MSL-7064. September 1989. 136 pages.

- 1212281 Allan, J.M. and Nord P.J (1986 "Determination of Triallate and its major metabolite in wheat grain, forage and straw" Unpublished study prepared by Monsanto. Report No. MSL-5998. December 1986. 139 pages.
- 1201604 Groya, F.L. (1985) "Residue Determination of Triallate and the Sodium Salt of 2,3,3-Trichloroprop-2-ene Sulfonic Acid in Milk and Beef Tissues." Unpublished study prepared by Monsanto Agricultural Products Company. R.D. No. 629. Special Report MSL-4867. July 22, 1985.
- 1198714 Groya, F.L. (1985) "Residue Determination in Eggs and Chicken Tissue." Unpublished study prepared by Monsanto. R.D. No. 631. Special Report MSL-4983. September 23, 1985.
- 1198716 Groya, F.L. (1985) "Residue Determination in Swine Tissue." Unpublished study prepared by Monsanto. R.D. No. 633. Special Report MSL-5029. September 30, 1985.
- 1236816 Allan, J.M. (1989) "Determination of Triallate and its Major Metabolite in Wheat Grain Milled Fractions." Unpublished study prepared by Monsanto. Report No. MSL-7064. September 11, 1989.
- 1109255 Allan, J.M. (1988) "Determination of Triallate and its Major Metabolite in Sunflower Seed Processed Commodities." Unpublished study prepared by Monsanto. Report No. MSL-17825. July 1988.
- 1109256 Allan, J.M. and Schneider, D.A. (1988) "Determination of Triallate and its Major Metabolite in Soybean Seed Processed Commodities." Unpublished study prepared by Monsanto. Report No. MSL-8099. December 1988.
- 656628 Kimmel, E.C., Montenegro, X.R., Sprinkle, R. And Toia, R.F. (1992) "A Confined Crop Study with ¹⁴C-Triallate Using Radishes (*Raphanus sativus*), Lettuce (*Lactuca sativa*), and Wheat (*Triticum aestivum*)." Unpublished study prepared by Monsanto. Project No. 201200. Report No. MSL-11857. September 25, 1992. 249 pages.

Effets sur l'environnement

N° PMRA Référence

- 1244217 Surface Drinking Water Monitoring Program for Triallate and its Soil Metabolite 2,3,3-Trichloro-2-Propenesulfonic Acid (TCPsA), Stone Environmental, Montpelier, VT, USA, Laboratory Report number MSL-18384, Monsanto Company, March 24, 2003. Unpublished data.

- 1141024 Laboratory Volatility of [^{14}C]-Triallate. (Part 6.2.1.1 of the submission), PTRL-West Inc. Richmond, California, U.S.A. Project No. 399W (R.D. No. 1157) Unpublished Data, 1993.
- 1164276 Measurement of the volatility of triallate from a surface application of a granular formulation. 1995, Monsanto Canada Inc. Agriculture and Agri-food Canada, Regina, Saskatchewan, Canada R.D. No. 150C.
- 1164275 Laboratory volatility of [^{14}C] triallate formulated as Avadex-BW 10G^R, 1995, Monsanto Company Report No. MSL-14391, PTLR West Inc., Richmond, California, U.S.A. Project No. 541W R.D. No. 149.

B. Rapports d'évaluation de l'ARLA réalisés antérieurement (non publiés)

N° PMRA	Référence
1484427	Pesticide Submission. Monsanto. Avadex BW (Far-Go) (Triallate). (Acute studies; Short-term studies). Memorandum. June 16, 1970.
1484434	Pesticide Submission. Monsanto. Triallate (technical and 2 formulations). Avadex BW. (Acute toxicity studies - New data to replace Younger Laboratories studies submitted previously). Memorandum. July 29, 1980.
1484436	Review and evaluation of a new study: "Two-year chronic oral toxicity study with triallate technical in Beagle dogs BTL-76-294." Memorandum. March 21, 1981.
1484443	Pesticide Submission. Monsanto. Triallate (Avadex BW, TDTC, Far-Go, CP-23426, XHI-170). (General review). Memorandum. June 27, 1983.
1484453	Pesticide Submission. Monsanto. Triallate (Avadex BW, TDTC, Far-Go, CP-23426, XHI-170). (Evaluation of replacements for invalid IBT studies). Memorandum. April 5, 1985.
1484454	Triallate (Review of database). Memorandum. June 22, 1987.
1484456	Triallate genotoxicity, submitted data and correspondence received from Monsanto, dated April 30, 1987. Memorandum. July 15, 1987.
1307112	Environmental Evaluation of Avadex BW 10G - Laboratory and Field Studies on Volatilization (Sub. Np. 95-1924). 1997, PMRA review.

C. Renseignements additionnels examinés dans le cadre de la réévaluation du triallate

Publications

N° PMRA	Référence
1307584	Anderson, A.-M., D.O. Trew, R.D. Neilson, N.D. MacAlpine and R. Borg (1998) Impacts of Agriculture on Surface Water Quality in Alberta. Part 1: Haynes Creek Study. Produced for Canada -Alberta Environmentally Sustainable Agriculture Agreement by Alberta Environmental Protection and Alberta Agriculture, Food and Rural Development.
1307572	Anderson, A.-M., D.A. Saffran, G. Byrtus and D.O. Trew, R.D. Neilson, N.D. MacAlpine and R. Borg (1998b) Impacts of Agriculture on Surface Water Quality in Alberta Part III: Pesticides in Small Streams and Lakes. Produced for Canada -Alberta Environmentally Sustainable Agriculture Agreement by Alberta Environmental Protection and Alberta Agriculture, Food and Rural Development.
1182699	Benigni, R., E. Dogliotti, E. Falcone and A. Calcagnile (1982) DNA repair studies on diallate, triallate and sulfallate in human cell culture. <i>Mutation Research</i> 103: 385-390.
1307567	Blundell, G. and J. Harman (2000) A Survey of the Quality of Municipal supplies of Drinking Water from Groundwater Sources in Prince Edward Island. Sierra Club of Canada, Eastern Canada Chapter, University of Waterloo, Department of Earth Sciences.
1434828	Douglas, G.R. <i>et. al.</i> (1981) Mutagenic activity of Diallate and Triallate determined by a battery of in vitro mammalian and microbial tests. <i>Mutation Research</i> , 85: 45-56.
1311966	Fairchild, J.F., D.S. Ruessler, P.S. Haverland, A.R. Carlson (1997). Comparative Sensitivity of <i>Selenastrum capricornutum</i> and <i>Lemna minor</i> to Sixteen Herbicides. <i>Arch. Environ. Contam. Toxicol.</i> 32:353-357.
1422235	Fenske, R.A., Blacker, A.M., Hamburger, S.J. and Simon, G.S. 1990. Worker exposure and protective clothing performance during manual seed treatment with lindane. <i>Arch Environ Cotam Toxicol</i> 19: 190-196.
1307577	Grover, R., D. T. Waite, A. J.Cessna, W. Nicholaichus, D.G. Irvin, L. A. Kerr and K. Best (1997). Magnitude and Persistence of Herbicide Residues in Farm Dugouts and Ponds in the Canadian Prairies. <i>Environmental Toxicology and Chemistry</i> 16 (4):638-643.

- 1307559 Hill, B.D., K.N. Harker, P. Hasselback, D.J. Inaba, S.D. Byers and J.R. Moyer (2002) Herbicides in Alberta Rainfall as Affected by Location, Use and Season:1999 to 2000. *Water Quality Research Journal of Canada* 37(3):515-542.
- 1422236 IPCS INCHEM, International Programme on Chemical Safety, Health and Safety Guide N . 89, Triallate Health and Safety guide.www.inchem.org/documents/hsg/hsg/hsg89.htm
- 1300278 Kumar, Y. (2001) Pesticides in Ambient Air in Alberta. ISBN 0-7785-1889-4. Report prepared for the Air Research Users Group, Alberta Environment, Edmonton, Alberta.
<http://environment.gov.ab.ca/info/library/5859.pdf#search=%22pesticide%20air%20Alberta%20Canada%22>
- 1401909 Martin, H. (2000) Herbicide Mode of Action Categories. OMAFRA Factsheet. Agdex#641, Order# 00-061 (www.omafra.gov.on.ca/english/crops/facts/00-061.htm)
- 1182688 Rocchi, P., P. Perocco, W. Alberghini, A. Fini and G. Prodi (1980) Effect of pesticides on scheduled and unscheduled DNA synthesis of rat thymocytes and human lymphocytes. *Arch. Toxicol.* 45: 101-108.
- 1434823 Sandhu, S.S. *et. al.* (1981) Mutagenicity evaluation of Diallate and Triallate herbicides in a battery of short-term tests. *Environ. Mutagenesis* 3(3): 361.
- 1109257 US EPA (2001) Reregistration Eligibility Decision for Triallate. EPA 738-r-00-021, List B, Case 2695.
- 1434820 US EPA. IRIS - Triallate (CASRN 2303-17-5) - March 31, 1987 (on-line). (www.epa.gov/IRIS/subst/00195.htm)
- 1291753 The USGS National Water Quality Assessment Program (NAWQA), USGS data of residue detections from 31 integrator sites on large rivers and streams. Downloaded Jan 8 2003. (<http://water.usgs.gov/nawqa/>)
- 1307594 Waite, D.T., P. Bailey, J.G. Sproull, D.V. Quiring, D.F. Chau, J. Bailey, A.J. Cessna (2005) Atmospheric concentrations and dry and wet deposits of some herbicides currently used on the Canadian Prairies. *Chemosphere* 58:693-703.
- 1309726 Waite, D.T., A.J. Cessna, R. Grover, L.A. Kerr and A. D. Snihura (2002) Environmental Concentrations of Agricultural herbicides: 2,4-D and Triallate. *Journal of Environmental Quality* 31:129-144

- 1307575 Waite, D.T., R. Grover, N.D. Westcott, H. Sommerstad and L. Kerr (1992) Pesticides in Ground Water, Surface Water and Spring Runoff in a Small Saskatchewan Watershed. *Environmental Toxicology and Chemistry* 11:741-748.

Renseignements non publiés

N° PMRA	Référence
1311140	Alberta Environmental Protection (2001). Pesticide Concentrations from Urban Storm Drains and Tributaries to the Oldman River in Lethbridge, Alberta Unpublished Data.
1311113	Environment Canada (2004) Unpublished Water Monitoring Data Collected in the Prairie Region. Pesticide Science Fund.
1311116	Environment Canada (2004) Unpublished Water Monitoring Data Collected in Wetlands of the Prairie Region (2004). Pesticide Science Fund.
1368292	Environment Canada (2005), Unpublished Triallate Monitoring Data in Reservoirs of the Prairie Region Collected Under Environment Canada's Pesticide Science Fund (2003-2004).
1368291	Environment Canada (2005) Unpublished Monitoring Data for Triallate in Rivers in the Prairie Region Collected Under Environment Canada's Pesticide Science Fund (2003-2004).
1311147	Environment Canada (2004). Unpublished Air Quality Monitoring Data Collected in the Canadian Prairies. Pesticide Science Fund. Environment Canada.
1311149	Environment Canada (2003). Raw data of Pesticide Atmospheric Monitoring Conducted in the Canadian Prairies. Environment Canada. (Raw data for the following: Published reference: Waite, D.T., P. Bailey, J.F. Sproull, D.B. Quiring, D.F. Chau, J. Bailey and A.J. Cessna (2005). Atmospheric concentrations in dry and wet deposits of some herbicides currently used on the Canadian Prairies. <i>Chemosphere</i> 58: 693-703.
1311146	Environment Canada (2003b). Unpublished Pesticide Air Quality Monitoring Data Collected in the Canadian Prairies. Pesticide Science Fund. Environment Canada.
1311131	Manitoba Water Stewardship (2004) Unpublished Water Monitoring Data from Manitoba (2001 - 2003).
1303803 &	Saskatchewan Environment and Resource Management (2002).

1303804	Unpublished water monitoring data from Saskatchewan (1979 - 2001) Environmental Protection Branch.
1311141	Alberta Environment (2002). Unpublished water monitoring data from surface water sources in Alberta (1971-2001).
1311127	Department of Fisheries and Oceans (DFO) (2002), National Contaminants Information System, Unpublished water Monitoring Data. Environmental Science Division, Central & Arctic Region, Freshwater Institute, 501 University Crescent, Winnipeg, Manitoba.
1299540	Waite, D. et al (2004) Unpublished calculations of atmospheric loading of triallate. Environment Canada.
1310568	Aanvulling op de bestaande samenvattingen en evaluaties van de werkzame stof triallaat inzake de milieuaspecten [46,51] en het beoordelen van het risico voor het milieu. [Evaluation of TGA1 Triallate in formulation Avadex 480]. CTB 99/3431. Comeles, A. and van der Linde, A. (2000).
1422232	Advisory report: 06981A00, Triallate, Residue evaluation and risk assessment for the consumer, B.C. Ossendorp, B.M. Van de Ven and A.J. Baars. 31/03/2000.
1422233	Adviesrapport: 07005A00, Triallaat, toxicologie addendum, M.T.M. Van Raaij and A.J. Baars. 08/04/2003.
199501	US EPA Id No.: 078802-000524. Triallate: I. Review of a special study to assess for alpha 2 μ globulins in rat kidneys; ii. assessing the potential impact of classifying triallate as an alpha 2 μ globulin type nephrotoxin on the carcinogenicity classification. Memorandum. June 21, 1999.
1422234	US EPA HED Reregistration Eligibility Document PC Code: 078802, April 18, 2000 (www.epa.gov/oppsrrd1/reregistration/triallate/hed_red.pdf)
199503	US EPA. Triallate: - Report of the Hazard Identification Assessment Review Committee. Memorandum. February 4, 1998.
199504	US EPA. Triallate: Re-evaluation Report of the Hazard Identification Assessment Review Committee. Memorandum. July 27, 1999.
921398	Evaluation of the potential of triallate to induce unscheduled DNA synthesis in primary rat hepatocyte cultures (November 14, 1985). DER. MRID No. 407306-01. February 14, 1989.
921399	Two-year study of triallate administered in feed to mice. (October, 1983). DER. Acc. No. 251837-39. January 14, 1986.

- 921399 Chronic study of triallate administration in feed to Sprague-Dawley rats (July 10, 1987). DER. MRID No. 403847-01. July 8, 1988.
- 921399 Lifetime chronic/oncogenicity study of triallate technical administered orally to Syrian golden hamsters (October 18, 1984). DER. Acc. Nos. 255807-8/255811-14. January 10, 1986.
- 921403 The metabolism of triallate in the rat. Part I - Excretion and tissue distribution of triallate and its metabolites after oral administration (October 26, 1983). Review. Acc. Nos. 252186/252187. February 10, 1986.
- 921403 The metabolism of triallate in the rat, Part II: Identification and quantification of triallate and its metabolites after oral administration (August, 1983). Review. Acc. No. 252188. February 10, 1986.
- 921403 Three-month feeding study with rats (August 23, 1982). Review. March 16, 1983.
- 921403 Three month feeding study of triallate to male and female outbred hamsters (May 7, 1982). Review. Acc. No. 248294. March 16, 1983.
- 921403 Two-year chronic oral toxicity study with triallate technical in Beagle dogs (October 2, 1979). Review. Acc. No. 242057. February 8, 1989.
- 921430 21-day dermal toxicity study in rats with technical triallate (January 29, 1990). DER. MRID No. 414870-01. February 1, 1991.
- 921514 Acute neurotoxicity study of triallate in Sprague-Dawley rats (July 8, 1993). DER. MRID No. 429081-01. July 15, 1994.
- 921541 Acute toxicity studies (November 9, 1982). MRID No. 071283. May 27, 1987. Acute oral - rats- #810173. Avadex B.W. - E.C. Review. Acute dermal toxicity. Avadex B.W. - E.C. Review. Primary eye irritation study - rabbit- #810176. Avadex B.W. - E.C. Review. Primary skin irritation in rabbits - #810175. Avadex B.W. - E.C. Review. 921541. Inhalation toxicity - rat- #810131. Triallate technical (September 9, 1982). Review. Acc. No. 071283. May 27, 1987.
- 921541 21 day dermal toxicity - rabbits. Avadex B.W. - E.C. (September 7, 1982) Review. Acc. No. 071283. May 27, 1987.
- 921541 *In vitro* gene mutation assay (HGPRT locus) in Chinese hamster ovary (CHO) cells (October 8, 1982). Review. Acc. No. 071284. May 27, 1987.
- 921541 *In vitro* sister chromatid exchange in Chinese hamster ovary cells (September 3, 1982). Review. Acc. No. 071284. May 27, 1987.

- 921547 EPA Registration Number: 524-307. Avadex BW Technical: Casewell No. 870A. Memorandum. March 31, 1980. Acute oral toxicity study. Bio/dynamics, Inc. (May 7, 1979). Review. Acute dermal toxicity study. Bio/dynamics, Inc. (May 7, 1979). Review. Eye irritation study. Bio/dynamics, Inc. (August 6, 1979). Review. Dermal irritation study. Bio/dynamics, Inc. (August 6, 1979). Review.
- 921552 EPA Registration Number: 524-145. Far-Go Selective Herbicide (Avadex BW 4lb/gal): Casewell No. 870A. Memorandum. March 25, 1980. Acute oral toxicity study. Bio/dynamics, Inc. (October 3, 1978, rev. May 5, 1979). Review. Acute dermal toxicity study. Bio/dynamics, Inc. (August 1, 1979). Review. Eye irritation study. Bio/dynamics, Inc. (June 28, 1978, rev. May 15, 1979 & August 6, 1979). Review. Skin irritation study. Bio/dynamics, Inc. (March 22, 1978, rev. August 6, 1979). Review.
- 921558 EPA Registration Number: 524-292. Far-Go (granular): Casewell No. 870A. Memorandum. March 27, 1980. Acute oral toxicity study. Bio/dynamics, Inc. (May 7, 1979). Review. Acute dermal toxicity study. Bio/dynamics, Inc. (May 17, 1979). Review. Eye irritation study. Bio/dynamics, Inc. (August 6, 1979). Review. Skin irritation study. Bio/dynamics, Inc. (August 6, 1979). Review.
- 921567 An acute oral toxicity and cholinesterase inhibition study in rats with triallate (November 16, 1984). DER. Acc. No. 257656. April 1, 1986.
- 921573 Acute oral toxicity study in rats with triallate (June 29, 1998). DER. MRID No. 44660701. June 22, 1999.
- 921573 Primary dermal irritation study in rabbits with triallate (January 27, 1998). DER. MRID No. 44581601. February 22, 1999.
- 921573 Guinea pig maximization test with triallate (method of Magnusson and Kligman) (June 6, 1997). DER. MRID No. 44308301. March 25, 1999.
- 921578 Dermal sensitization study. Far-Go Selective Herbicide. Bio/dynamics, Inc. (January 17, 1984). Review. December 9, 1985.
- 921615 Carcinogenicity peer review meeting on triallate (reconsideration). Memorandum. December 24, 1991.
- 921641 Developmental neurotoxicity study of triallate administered to pregnant/lactating CD rats (December 2, 1998). DER. MRID No. 4471050. June 7, 1999.
- 921642 Teratology study in rabbits with triallate technical (IR-80-087) (January 21, 1982). DER. Acc. No. 248293. November 18, 1992.

- 921642 Triallate - A teratology study in rats (May 10, 1982). DER. Acc. No 248293. November 18, 1992.
- 922469 Evaluation of the potential of triallate to induce unscheduled DNA synthesis in the *in vivo-in vitro* hepatocyte DNA repair assay in the B6C3F1 mouse (September 20, 1989). DER. MRID No. 44701001. February 23, 1999.
- 922474 Mutagenicity evaluation of CP23426 (*Salmonella typhimurium*/*Saccharomyces cerevisiae*/mammalian microsome mutagenicity assay) (July, 1977). DER. MRID No. 000886-24. May 21, 1993.
- 922475 An evaluation of mutagenic potential of triallate employing the L5178Y TK^{+/+} mouse lymphoma assay (March, 1980). DER. MRID No. 410910-07. May 21, 1993.
- 922481 Effect of a single oral dose of triallate on hens (Delayed neurotoxicity in hens) (August 10, 1983). DER. Acc. No. 251840. April 2, 1984.
- 922483 Subchronic neurotoxicity study of triallate in Sprague-Dawley rats (November 17, 1993). DER. MRID No. 430216-01. April 21, 1994.
- 922494 Triallate technical. A two-generation reproduction study in the rat. (July 11, 1984). DER. Acc. Nos. 254643-254645. October 30, 1986.
- 922503 Acute oral toxicity study in rats (May 7, 1982). Review. Acc. No. 248295. June 15, 1983.
- 922503 Acute inhalation toxicity of Avadex BW EC to SD - male and female rats (April 23, 1982). Review. Acc. No. 248295. June 15, 1983.
- 922503 In vivo cytogenetic assay of triallate in Golden Syrian hamsters (May 7, 1982). Review. Acc. No. 248294. June 15, 1983.
- 922503 21 day dermal toxicity in rabbits (April 27, 1982). Review. Acc. No. 248295. June 15, 1983.
- 922504 A dermal sensitization study in Guinea pigs (October 7, 1983). DER. Acc. No. 251840. November 7, 1984.
- 922504 Elimination of ¹⁴C-triallate in Rhesus monkeys following a single parenteral dose (April 1, 1983). DER. Acc. No. 251840. April 2, 1984.
- 922504 Seven-week toxicity study of triallate administered to male and female Sprague-Dawley rats by inhalation (1983). DER. Acc. No. 251840. November 7, 1984.

